

ORIGINAL
WATCO

PO Box 1270 Show Low, AZ 85902
Phone 928-337-8739



RECEIVED

Blessing Chukwu
Arizona Corporation Commission
1200 W Washington Street
Phoenix, AZ 85007

2005 NOV -4 P 12: 48

AZ CORP COMMISSION
DOCUMENT CONTROL

October 31, 2005

RE: WATCO- Application for Extension of Certificate of Convenience and Necessity
Insufficiency Letter. Docket No. W-01979A-05-0645.

Dear Blessing,

This letter is in reference to the Insufficiency Letter dated October 5, 2005.

1. Please find enclosed a Proposed Water Rate Tariff Schedule for the proposed new service area.
2. Copy of Arizona Department of Environmental Quality Approval to Construct was addressed in the original CC&N Extension application, items to be late filed page, referenced as M.2. "ADEQ approval to construct facilities. Expected March 15, 2006" Items to be late filed page is included for reference.
3. Also on items to be late filed page. M.1. States "Franchise from Navajo County for area requested. Expected December 1, 2005." A copy of this application is enclosed for your reference.
4. ADWR Water supply. This is on the items to be late filed page as M.5. Expected April 1, 2006.
5. Wastewater information is included in the Design Report received from the Engineer and enclosed in the backup material.
6. ADEQ Compliance material is enclosed with a letter sent to Jim Puckett of ADEQ.
7. All of the information requested in #7 was to be addressed and included in the Design Report from the Engineer that is enclosed.

There was also a request received from Del Smith to include a cost breakdown of the plant. I have also included this in the package. The difference in estimated cost between \$501,772 and \$775,528 is \$273,756 due to cost of rock anticipated during construction trenching.

If there are any other questions please contact us at the above address.

Sincerely,

Mark Grapp

Watco
Proposed Tariff Sheet Schedule
Shumway Division

RATES AND CHARGES

Monthly Usage Charge

5/8" x 3/4" Meter	\$25.00
3/4" Meter	\$30.00
1" Meter	\$50.00
1 1/2" Meter	\$95.00
2" Meter	\$175.00
3" Meter	\$300.00
4" Meter	\$600.00
6" Meter	\$1,200.00

Gallage Charge-Per 1,000 gallons

0-4,000 gallons	\$3.00
4,001-20,000 gallons	\$3.25
In excess of 20,000 gallons	3.75

SERVICE LINE AND METER INSTALLATION CHARGES:

(Refundable pursuant to A.A.C. R14-2-405)

5/8" x 3/4" Meter	\$290.00
3/4" Meter	\$320.00
1" Meter	\$370.00
1 1/2" Meter	\$545.00
2" Meter	\$750.00
3" Meter	\$980.00
4" Meter	\$1,820.00
6" Meter	\$3,920.00

SERVICE CHARGES:

Establishment	\$25.00
Establishment (After Hours)	\$40.00
Reconnection (Delinquent)	\$25.00
Meter Test (If correct)	\$50.00
Deposit	*
Deposit Interest (per annum)	*
Reestablishment (within 12 months)	**
NSF Check	\$25.00
Deffered Payment****	
Meter Reread (If correct)	\$25.00
<u>Monthly Service Charge for Fire Sprinkler System</u>	
4" or smaller	***
6" or larger	***

*Per Commission A.A.C. R-14-2-403 (B)

** Months off system times the monthly minimum per Commission rule A.A.C. R14-2-403 (D)

***1.00% of Monthly Minimum for a Comparable Sized Meter Connection, but no less than \$5.00per month. The Service Charge for Fire Sprinklers is only applicable for service lines

****1 1/2 percent per month of outstanding balance.

Watco CC&N Extension items that will be late filed:

- M. 1. Franchise from Navajo County for the area requested. Expected December 1, 2005.
- M. 2. ADEQ approval to construct facilities. Expected March 15, 2006.
- M. 5. Designation of an Assured Water Supply, or the developer's Certificate of 100 Year Water Supply issued from the Arizona Department of Water Resources. Expected April 1, 2006.



Navajo County Administration

Gail Calisen
Human Resources Director

James G. Jayne
County Manager

James Menlove
Finance Director

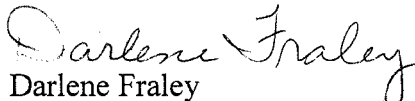
August 29, 2005

Mr. Mark Grapp
P.O. Box 1270
Show Low, AZ 85902

Dear Mr. Grapp:

Enclosed please find the franchise forms that you requested. This new form is a county-wide franchise form so you will not find reference to Exhibit A outlining the service area, which had been included in your original franchise request. Please return the completed documents to me and I will process them.

Sincerely,


Darlene Fraley
Deputy Clerk of the Board

APPLICATION FOR FRANCHISE

TO: THE HONORABLE NAVAJO COUNTY BOARD OF SUPERVISORS

1. WATCO Inc. ("Applicant") an Arizona public service corporation, public utility or political subdivision, hereby applies for the right, privilege and non-exclusive franchise to construct, install, maintain and operate on, over, along, across and under the present and future public streets, avenues, alleys, highways, bridges, roads and other public ways in the unincorporated areas of Navajo County under the jurisdiction of the Board of Supervisors, all lines, pipes, cables and other facilities customarily associated with the Applicant's business of supplying water service to its customers.

2. Applicant is duly licensed and in good standing to provide service within the State of Arizona, including Navajo County. If Applicant is regulated by the Arizona Corporation Commission, Applicant possesses a current Certificate of Convenience and Necessity to provide service within Navajo County and has attached a copy hereto.

3. Applicant is financially able to install all facilities associated with the franchise applied for herein and shall operate the franchise according to law and as the public convenience and necessity may require.

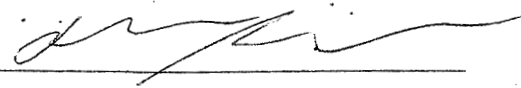
4. Applicant has reviewed the terms and conditions upon which the franchise will be granted and agrees to abide by them as though fully set forth herein.

5. Applicant will pay all expenses associated with the granting of the franchise.

6. Applicant understands that the Board of Supervisors will publish notice of this application in accordance with A.R.S. § 40-283 and that the franchise may be denied if a valid protest is filed by a majority of the qualified electors of Navajo County.

SUBMITTED on October 7, 2005

APPLICANT: WATCO

BY: Mark Grapp 

TITLE: President

NOTICE OF INTENTION TO GRANT NON-EXCLUSIVE FRANCHISE

NOTICE IS HEREBY GIVEN that the following public service corporation, public utility or political subdivision has applied to the Board of Supervisors of Navajo County pursuant to A.R.S. § 40-283 for a Franchise to construct, install, maintain and operate on, over, along, across and under the present and future public streets, avenues, alleys, highways, bridges, roads and other public ways in the unincorporated areas of Navajo County under the jurisdiction of the Board of Supervisors, all lines, pipes, cables and other facilities customarily associated with the Applicant's business of supplying water service to its customers.

Applicant: Watco

Type of service: water

NOTICE IS HEREBY GIVEN that the Board of Supervisors intends to grant the requested Franchise at a hearing at _____ on _____ in the Board of Supervisors Chambers, Navajo County Governmental Complex, South Highway 77, Holbrook, Arizona, unless MORE THAN FIFTY PERCENT (50%) OF THE QUALIFIED ELECTORS OF THE COUNTY petition the Board, at or before the hearing, to deny the Franchise.

DONE by order of the Board of Supervisors on _____.

BOARD OF SUPERVISORS
OF NAVAJO COUNTY

By _____
Clerk of the Board of Supervisors

RESOLUTION NO.

A RESOLUTION OF THE BOARD OF SUPERVISORS OF NAVAJO COUNTY, GRANTING A NON-EXCLUSIVE FRANCHISE FOR PUBLIC UTILITY PURPOSES PURSUANT TO A.R.S. § 40-283 TO _____.

BE IT RESOLVED by the Board of Supervisors of Navajo County as follows:

Section 1. There is hereby granted to WATCO, an Arizona public service corporation, public utility or political subdivision, its successors and assigns ("Franchisee"), the right, privilege and non-exclusive franchise to construct, install, maintain and operate on, over, along, across and under the present and future public streets, avenues, alleys, highways, bridges, roads and other public ways in the unincorporated areas of Navajo County under the jurisdiction of the Board of Supervisors, all lines, pipes, cables and other facilities customarily associated with the Applicant's business of supplying water service to its customers.

Section 2. All facilities to be constructed or installed pursuant to this Franchise shall be constructed, installed and maintained in accordance with Navajo County standards, specifications and permit and insurance requirements for work within the public rights of way, as administered by the Navajo County Department of Public Works and Risk Manager.

Section 3. If any facility constructed or installed pursuant to this Franchise is found to interfere unduly with vehicular or pedestrian traffic, Franchisee shall, at its own expense and within a reasonable time after notice thereof by the Department of Public Works, remove or relocate the facility so as to eliminate the undue interference.

Section 4. Franchisee shall bear all expenses, including damage and compensation, for any alteration of the direction, surface, grade or alignment of a public road or other public way, made for the purpose of this Franchise.

Section 5. This Franchise is subject at all times to such regulations and limitations on the use of the public roads and other public ways as the Board of Supervisors may deem best for the public safety and welfare from time to time.

Section 6. If the Board of Supervisors takes action to dispose of an unnecessary public roadway pursuant to A.R.S. § 28-7201 et seq., the Board shall include in the instrument of disposal specific and appropriate language to preserve Franchisee's rights of use as they existed before the disposal.

Section 7. If Franchisee's exercise of its rights under this Franchise causes disturbance of pavement, sidewalk, driveway or other improved surface, or planting or other ground cover, Franchisee shall, at its expense, promptly restore the surface to its prior condition in a manner satisfactory to the Department of Public Works.

DESIGN REPORT

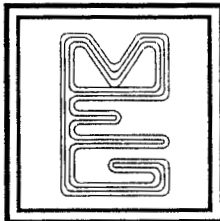
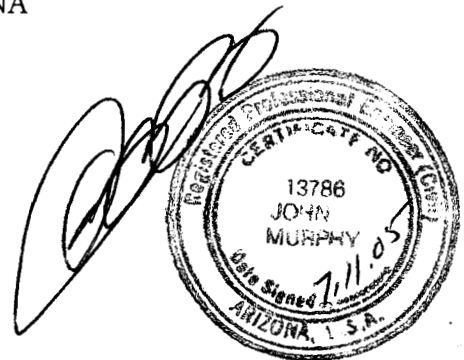
WATER, WASTEWATER, AND SOLID WASTE HANDLING

FOR

Canyon Vista Estates

A SUBDIVISION IN A PORTION OF SECTION 31,
TOWNSHIP 12 NORTH, RANGE 22 EAST,
GILA & SALT RIVER MERIDIAN,
NAVAJO COUNTY, ARIZONA

June 2005



PREPARED BY:
MURPHY ENGINEERING GROUP
1801 WEST DEUCE OF CLUBS, SUITE 230,
SHOW LOW, AZ 85901-6794
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Document Revision History

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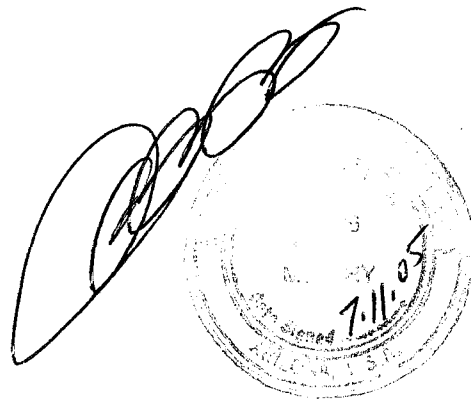
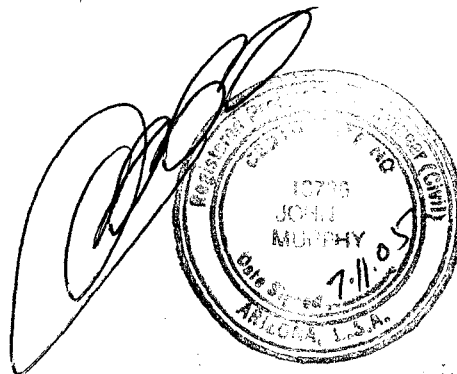


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I. INTRODUCTION

CANYON VISTA ESTATES is a proposed ^{105.13}~~125.8~~ acre fifty-six [56] lot residential development located in Section 31, Township 12 North, Range 22 East, Gila and Salt River Meridian. The proposed development is located in the unincorporated area of Shumway, Navajo County, Arizona (see Figure 1 below). Construction for this 56 lot development is anticipated to be completed in the year 2006.

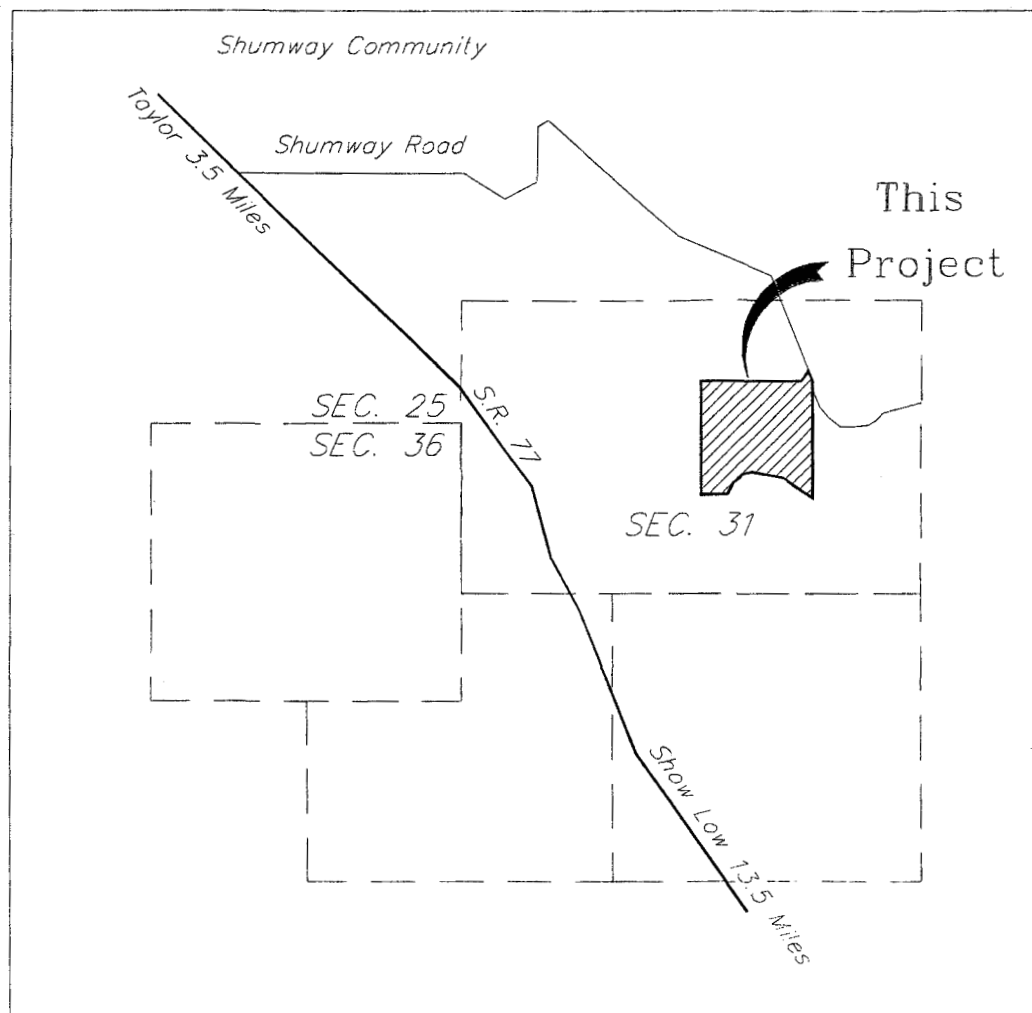


Figure 1: Vicinity Map

PURPOSE

The purpose of this report is to analyze existing site conditions and facilities to determine if they will meet the appropriate water, wastewater, and solid waste requirements for the proposed CANYON VISTA ESTATES Subdivision. Navajo County and A.D.E.Q. requirements will be the basis for the analysis and proposed improvements.

WATER

There is not an existing water supply system in the area of CANYON VISTA ESTATES. A new system is proposed to service this subdivision and a future subdivision located across Shumway Road, directly northeast of CANYON VISTA ESTATES. A new well will be drilled, a tank put on the site, and a booster station will be built to provide water to the subdivisions.

WASTEWATER

There is not an existing sewer system in the area of CANYON VISTA ESTATES. Therefore lot owners will provide their own on-site disposal system.

SOLID WASTE

Several private service companies serve the area around CANYON VISTA ESTATES. Larson Waste, being one such private service company, has committed to servicing the proposed development.

II. WATER SUPPLY

As previously stated, the proposed CANYON VISTA ESTATES development is not located within the boundaries of any existing water providers. A well will be drilled and be connected to a ground level 120,000 gallon steel storage tank. The storage tank will then outlet to a booster station. The booster station will consist of three pumps, a 2,000-gallon hydro-pneumatic tank, all housed in a constructed building. The system of pumps are designed to be set up such that two of the pumps will perform during normal and peak demand times. These pumps will each be capable of producing 75 gallons per minute at 162 feet of total dynamic head. The fire flow requirement for the subdivision is 1000 gallons per minute. Under a fire flow situation, the pumps should combine to provide 1,150 gallons per minute at 150 feet of total dynamic head. The water will then continue to the hydro-pneumatic tank and into the water system throughout the subdivision. The proposed water system will provide water for both Canyon Vista Estates and a future subdivision called Cedar Mesa Ridge. Canyon Vista Estates has 56 proposed lots and the future subdivision has 54, for a total of 110 lots. See Figure 2 for a schematic layout of the water system.

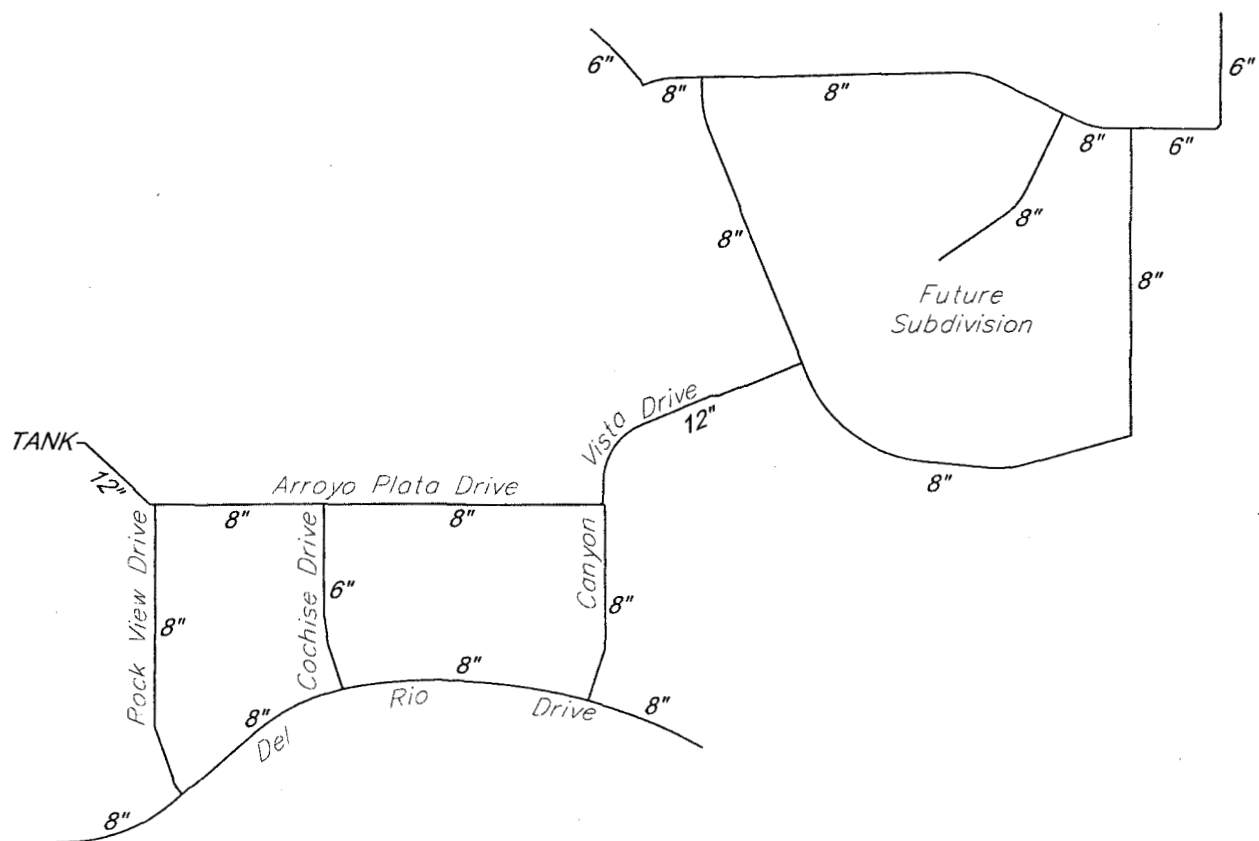


Figure 2 – Water System Schematic

Fire protection facilities will be provided to meet the White Mountain Lake Fire Department's requirements. An adequate number of fire hydrants will be installed throughout the development per the White Mountain Lake Department's recommendations. See Figure 2 for a schematic layout of the proposed system.

Water demand for the CANYON VISTA ESTATES development was estimated as follows (see Appendix C – Water Demand Calculations):

- Residential = 110 lots X 350 gpd = 38,500 gpd
- Avg. Daily Flow = 38,500 gpd / 18 hr / 60 min = 36 gpm
- Peak Flow = 36 gpm X 3 = 108 gpm

The minimum fire flow requirement, as defined by the White Mountain Lake Fire District, is 1,000 gpm for residential developments. The proposed system was modeled with Haestad Methods WaterCAD v5.0037. This model predicts fire flow at Junction-40 to be 1,183.75 gpm. This junction is located in a cul-de-sac in the middle of the future subdivision. This model also predicts fire flow at Junctions 1 & 13 to be 1,203.5 gpm. These Junctions are at the intersections of Arroyo Plata Drive and Rock View Drive and Del Rio Drive and Rock View Drive, respectively. The pressures during this fire flow condition were all above 20 psi at all junctions. (See Water Pressure/Fire Flow Calculations - Appendix A).

III. WASTEWATER DISPOSAL

As stated in the Introduction section of this report, no sanitary sewer collection or treatment facilities are located in this rural area. Due to the sparse density of this area, it is not anticipated that any "community" system will be available in the foreseeable future. The use of individual on-site disposal systems therefore appears to be the only alternative available.

The proposed subdivision will divide the property into lots with a minimum area of 1.2 acres. This will provide sufficient room for on-site disposal systems (required system area plus reserve area).

White Mountain Testing investigated the soil conditions at the proposed development in December of 2004. Soil profile pits and percolation test holes were excavated at that time for the Canyon Vista Estates area at five different locations. (See Percolation Tests and Examples – Appendix B)

According to White Mountain Testing, soil characteristics consist of topsoil from 0 to 20 inches and Sandy Loam from 20 to 120 inches.

Percolation rates within five locations tested vary from 17 minutes/inch to 44 minutes/inch (see Appendix B).

Although all the percolations rates were lower than 60 min./inch, three design examples were completed. For lot 40, an example septic system was designed. For lot 5, an example alternative Wisconsin Mound system was designed. And for lot 17, an example of an Orenco system was designed. These example designs are located in Appendix B.

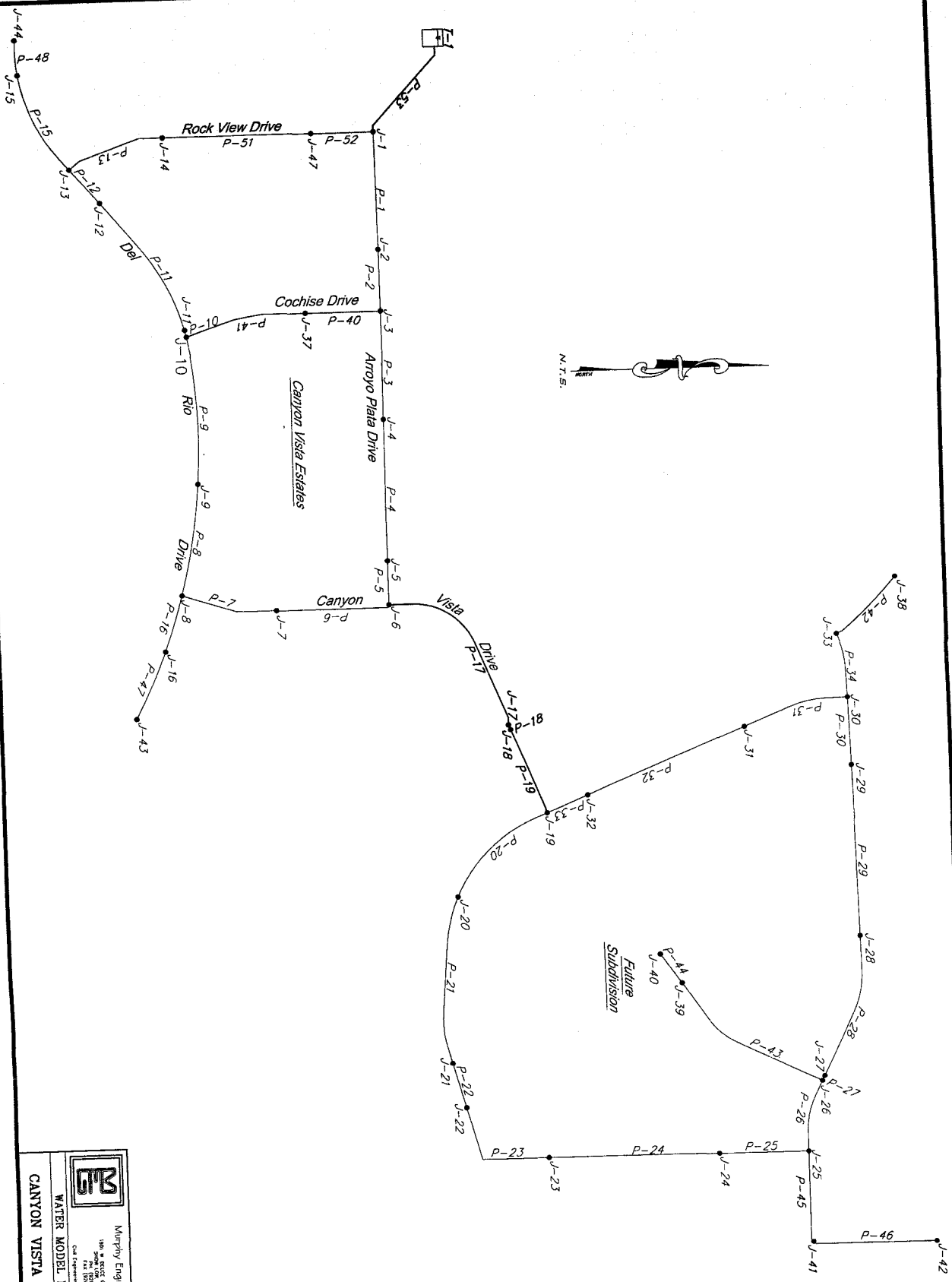
It is expected that adequate soils can be found on many lots within Canyon Vista Estates, which will produce acceptable percolation rates for conventional septic tank/leach field systems. However, if during the soil investigation required for each lot, soils are encountered which do not exhibit acceptable percolation rates, an alternate system will be necessary. A registered, professional Engineer, in accordance with county and state requirements and regulations, should determine the type, configuration, and size of alternate system.

IV. SOLID WASTE HANDLING

Solid waste handling and disposal may be done by one of several private companies, which provide such services. For this development Larson Waste will collect the solid waste. They have signed a Garbage Service Agreement to this effect (included in Appendix C for reference). Collected solid waste will be transported to the Apache County Regional Land Fill. Blue Hills Environmental Association, Inc. has signed a Garbage Disposal Agreement for this development (included in Appendix C for reference).

APPENDIX A

WATER PRESSURE / FIRE FLOW CALCULATIONS



Murphy Engineering Group

1800 W. RICE ST. SUITE 200
 TULSA, OK 74107
 TEL: (918) 521-2122
 FAX: (918) 521-2123
 E-MAIL: info@murphyeng.com

WATER MODEL LAYOUT

CANYON VISTA ESTATES

Scenario: Base
Fire Flow Analysis
Fire Flow Report

Label	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Needed Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Needed (gpm)	Total Flow Available (gpm)	Residual Pressure (psi)	Calculated Residual Pressure (psi)	Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)
J-1	1	true	1,000.00	1,200.00	1,003.50	1,203.50	20.00	70.61	20.00	43.56	20.00	43.56
J-2	1	true	1,000.00	1,200.00	1,000.50	1,200.50	20.00	71.38	20.00	41.17	20.00	41.17
J-3	1	true	1,000.00	1,200.00	1,002.50	1,202.50	20.00	71.18	20.00	40.21	20.00	40.21
J-4	1	true	1,000.00	1,200.00	1,003.00	1,203.00	20.00	70.94	20.00	38.48	20.00	38.48
J-5	1	true	1,000.00	1,200.00	1,001.00	1,201.00	20.00	70.15	20.00	36.65	20.00	36.65
J-6	1	true	1,000.00	1,200.00	1,002.00	1,202.00	20.00	69.89	20.00	36.10	20.00	36.10
J-7	1	true	1,000.00	1,200.00	1,001.00	1,201.00	20.00	68.65	20.00	37.10	20.00	37.10
J-8	1	true	1,000.00	1,200.00	1,000.50	1,200.50	20.00	68.33	20.00	37.87	20.00	37.87
J-9	1	true	1,000.00	1,200.00	1,001.50	1,201.50	20.00	68.51	20.00	38.76	20.00	38.76
J-10	1	true	1,000.00	1,200.00	1,003.00	1,203.00	20.00	67.92	20.00	40.00	20.00	40.00
J-11	1	true	1,000.00	1,200.00	1,000.00	1,200.00	20.00	67.73	20.00	40.04	20.00	40.04
J-12	1	true	1,000.00	1,200.00	1,002.00	1,202.00	20.00	62.90	20.00	41.02	20.00	41.02
J-13	1	true	1,000.00	1,200.00	1,003.50	1,203.50	20.00	65.03	20.00	41.29	20.00	41.29
J-14	1	true	1,000.00	1,200.00	1,000.50	1,200.50	20.00	63.94	20.00	41.90	20.00	41.90
J-15	1	true	1,000.00	1,200.00	1,000.00	1,200.00	20.00	57.78	20.00	41.29	20.00	41.29
J-16	1	true	1,000.00	1,200.00	1,000.50	1,200.50	20.00	66.72	20.00	37.87	20.00	37.87
J-18	1	true	1,000.00	1,200.00	1,000.00	1,200.00	20.00	70.30	20.00	34.99	20.00	34.99
J-19	1	true	1,000.00	1,200.00	1,002.50	1,202.50	20.00	71.74	20.00	34.48	20.00	34.48
J-20	1	true	1,000.00	1,200.00	1,003.00	1,203.00	20.00	68.37	20.00	32.77	20.00	32.77
J-21	1	true	1,000.00	1,200.00	1,000.50	1,200.50	20.00	68.20	20.00	31.01	20.00	31.01
J-22	1	true	1,000.00	1,200.00	1,000.00	1,200.00	20.00	65.65	20.00	30.56	20.00	30.56
J-23	1	true	1,000.00	1,200.00	1,001.50	1,201.50	20.00	68.81	20.00	29.41	20.00	29.41
J-24	1	true	1,000.00	1,200.00	1,003.00	1,203.00	20.00	37.10	20.00	27.80	20.00	27.80
J-25	1	true	1,000.00	1,200.00	1,000.50	1,200.50	20.00	38.89	20.00	26.93	20.00	26.93
J-26	1	true	1,000.00	1,200.00	1,002.00	1,202.00	20.00	83.67	20.00	26.17	20.00	26.17
J-27	1	true	1,000.00	1,200.00	1,000.00	1,200.00	20.00	83.68	20.00	26.23	20.00	26.23
J-28	1	true	1,000.00	1,200.00	1,002.00	1,202.00	20.00	29.71	20.00	27.83	20.00	27.83
J-29	1	true	1,000.00	1,200.00	1,002.50	1,202.50	20.00	67.44	20.00	29.62	20.00	29.62
J-30	1	true	1,000.00	1,200.00	1,001.50	1,201.50	20.00	68.16	20.00	30.34	20.00	30.34
J-31	1	true	1,000.00	1,200.00	1,001.00	1,201.00	20.00	68.29	20.00	31.52	20.00	31.52
J-32	1	true	1,000.00	1,200.00	1,003.00	1,203.00	20.00	70.52	20.00	33.70	20.00	33.70
J-33	1	true	1,000.00	1,200.00	1,000.50	1,200.50	20.00	64.91	20.00	30.34	20.00	30.34
J-37	1	true	1,000.00	1,200.00	1,000.50	1,200.50	20.00	66.38	20.00	40.24	20.00	40.24
J-38	1	true	1,000.00	1,200.00	1,000.00	1,200.00	20.00	52.39	20.00	30.34	20.00	30.34
J-39	14	true	1,000.00	1,183.75	1,001.50	1,185.25	20.00	20.00	20.00	31.45	20.00	31.45
J-40	14	true	1,000.00	1,183.75	1,000.00	1,183.75	20.00	58.29	20.00	20.00	20.00	20.00
J-41	1	true	1,000.00	1,200.00	1,001.50	1,201.50	20.00	24.97	20.00	26.93	20.00	26.93
J-42	1	true	1,000.00	1,200.00	1,000.00	1,200.00	20.00	47.12	20.00	24.97	20.00	24.97
J-43	1	true	1,000.00	1,200.00	1,000.00	1,200.00	20.00	65.95	20.00	37.87	20.00	37.87
J-44	1	true	1,000.00	1,200.00	1,000.00	1,200.00	20.00	54.79	20.00	41.29	20.00	41.29
J-47	1	true	1,000.00	1,200.00	1,002.50	1,202.50	20.00	67.38	20.00	42.90	20.00	42.90
J-17	1	true	1,000.00	1,200.00	1,000.00	1,200.00	20.00	70.07	20.00	35.02	20.00	35.02

Scenario: Base
Fire Flow Analysis
Junction Report

Label	Elevation (ft)	Zone	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-1	5,922.00	Zone-1	Demand	3.50	Fixed	3.50	6,086.70	71.26
J-2	5,913.80	Zone-1	Demand	0.50	Fixed	0.50	6,086.69	74.80
J-3	5,912.20	Zone-1	Demand	2.50	Fixed	2.50	6,086.68	75.49
J-4	5,908.00	Zone-1	Demand	3.00	Fixed	3.00	6,086.67	77.30
J-5	5,906.40	Zone-1	Demand	1.00	Fixed	1.00	6,086.67	77.99
J-6	5,906.40	Zone-1	Demand	2.00	Fixed	2.00	6,086.67	77.99
J-7	5,908.80	Zone-1	Demand	1.00	Fixed	1.00	6,086.67	76.96
J-8	5,910.00	Zone-1	Demand	0.50	Fixed	0.50	6,086.67	76.44
J-9	5,911.10	Zone-1	Demand	1.50	Fixed	1.50	6,086.67	75.96
J-10	5,916.40	Zone-1	Demand	3.00	Fixed	3.00	6,086.68	73.67
J-11	5,916.80	Zone-1	Demand	0.00	Fixed	0.00	6,086.68	73.50
J-12	5,928.40	Zone-1	Demand	2.00	Fixed	2.00	6,086.68	68.48
J-13	5,924.00	Zone-1	Demand	3.50	Fixed	3.50	6,086.68	70.38
J-14	5,928.40	Zone-1	Demand	0.50	Fixed	0.50	6,086.69	68.48
J-15	5,930.90	Zone-1	Demand	0.00	Fixed	0.00	6,086.68	67.40
J-16	5,908.40	Zone-1	Demand	0.50	Fixed	0.50	6,086.67	77.13
J-18	5,902.90	Zone-1	Demand	0.00	Fixed	0.00	6,086.66	79.51
J-19	5,898.40	Zone-1	Demand	2.50	Fixed	2.50	6,086.66	81.45
J-20	5,898.80	Zone-1	Demand	3.00	Fixed	3.00	6,086.66	81.28
J-21	5,893.20	Zone-1	Demand	0.50	Fixed	0.50	6,086.66	83.70
J-22	5,897.90	Zone-1	Demand	0.00	Fixed	0.00	6,086.66	81.67
J-23	5,888.20	Zone-1	Demand	1.50	Fixed	1.50	6,086.66	85.86
J-24	5,959.60	Zone-1	Demand	3.00	Fixed	3.00	6,086.66	54.97
J-25	5,955.10	Zone-1	Demand	0.50	Fixed	0.50	6,086.66	56.92
J-26	5,851.60	Zone-1	Demand	2.00	Fixed	2.00	6,086.66	101.70
J-27	5,851.60	Zone-1	Demand	0.00	Fixed	0.00	6,086.66	101.70
J-28	5,977.30	Zone-1	Demand	2.00	Fixed	2.00	6,086.66	47.31
J-29	5,892.70	Zone-1	Demand	2.50	Fixed	2.50	6,086.66	83.92
J-30	5,892.60	Zone-1	Demand	1.50	Fixed	1.50	6,086.66	83.96
J-31	5,895.50	Zone-1	Demand	1.00	Fixed	1.00	6,086.66	82.71
J-32	5,898.10	Zone-1	Demand	3.00	Fixed	3.00	6,086.66	81.58
J-33	5,894.20	Zone-1	Demand	0.50	Fixed	0.50	6,086.66	83.27
J-37	5,914.60	Zone-1	Demand	0.50	Fixed	0.50	6,086.68	74.45
J-38	5,893.30	Zone-1	Demand	0.00	Fixed	0.00	6,086.66	83.66
J-39	5,984.50	Zone-1	Demand	1.50	Fixed	1.50	6,086.66	44.20
J-40	5,892.80	Zone-1	Demand	0.00	Fixed	0.00	6,086.66	83.87
J-41	5,953.40	Zone-1	Demand	1.50	Fixed	1.50	6,086.66	57.65
J-42	5,857.50	Zone-1	Demand	0.00	Fixed	0.00	6,086.66	99.15
J-43	5,903.50	Zone-1	Demand	0.00	Fixed	0.00	6,086.67	79.25
J-44	5,934.60	Zone-1	Demand	0.00	Fixed	0.00	6,086.68	65.80
J-47	5,925.60	Zone-1	Demand	2.50	Fixed	2.50	6,086.69	69.70
J-17	5,903.50	Zone-1	Demand	0.00	Fixed	0.00	6,086.67	79.25

Scenario: Base
Fire Flow Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Material	Hazen- Williams C	Check Valve?	Minor Loss Coefficient	Control Status	Discharge (gpm)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Pressure Pipe Headloss (ft)	Headloss Gradient (ft/1000ft)
P-1	418.00	8.0	Ductile Iro	130.0	false	0.00	Open	29.06	6,086.70	6,086.69	0.01	0.03
P-2	218.00	8.0	Ductile Iro	130.0	false	0.00	Open	28.56	6,086.69	6,086.68	0.01	0.03
P-3	380.00	8.0	Ductile Iro	130.0	false	0.00	Open	21.15	6,086.68	6,086.67	0.01	0.01
P-4	500.00	8.0	Ductile Iro	130.0	false	0.00	Open	18.15	6,086.67	6,086.67	0.01	0.01
P-5	156.00	8.0	Ductile Iro	130.0	false	0.00	Open	17.15	6,086.67	6,086.67	0.00	0.01
P-6	405.00	8.0	Ductile Iro	130.0	false	0.00	Open	-11.35	6,086.67	6,086.67	0.00	0.00
P-7	339.00	8.0	Ductile Iro	130.0	false	0.00	Open	-12.35	6,086.67	6,086.67	0.00	0.00
P-8	399.00	8.0	Ductile Iro	130.0	false	0.00	Open	-13.35	6,086.67	6,086.67	0.00	0.01
P-9	521.00	8.0	Ductile Iro	130.0	false	0.00	Open	-14.85	6,086.67	6,086.68	0.00	0.01
P-10	24.00	8.0	Ductile Iro	130.0	false	0.00	Open	-13.44	6,086.68	6,086.68	0.00	0.02
P-11	540.00	8.0	Ductile Iro	130.0	false	0.00	Open	-13.44	6,086.68	6,086.68	0.00	0.01
P-12	160.00	8.0	Ductile Iro	130.0	false	0.00	Open	-15.44	6,086.68	6,086.68	0.00	0.01
P-13	353.00	8.0	Ductile Iro	130.0	false	0.00	Open	-18.94	6,086.68	6,086.69	0.00	0.01
P-15	385.00	8.0	Ductile Iro	130.0	false	0.00	Open	0.00	6,086.68	6,086.68	0.00	0.00
P-16	207.00	8.0	Ductile Iro	130.0	false	0.00	Open	0.50	6,086.67	6,086.67	0.00	0.00
P-19	319.00	12.0	Ductile Iro	130.0	false	0.00	Open	26.50	6,086.66	6,086.66	0.00	0.00
P-20	443.00	8.0	Ductile Iro	130.0	false	0.00	Open	10.88	6,086.66	6,086.66	0.00	0.00
P-21	601.00	8.0	Ductile Iro	130.0	false	0.00	Open	7.88	6,086.66	6,086.66	0.00	0.00
P-22	165.00	8.0	Ductile Iro	130.0	false	0.00	Open	7.38	6,086.66	6,086.66	0.00	0.00
P-23	427.00	8.0	Ductile Iro	130.0	false	0.00	Open	7.38	6,086.66	6,086.66	0.00	0.00
P-24	600.00	8.0	Ductile Iro	130.0	false	0.00	Open	5.88	6,086.66	6,086.66	0.00	0.00
P-25	310.00	8.0	Ductile Iro	130.0	false	0.00	Open	2.88	6,086.66	6,086.66	0.00	0.00
P-26	261.00	8.0	Ductile Iro	130.0	false	0.00	Open	0.88	6,086.66	6,086.66	0.00	0.00
P-27	19.00	8.0	Ductile Iro	130.0	false	0.00	Open	-2.62	6,086.66	6,086.66	0.00	0.00
P-28	522.00	8.0	Ductile Iro	130.0	false	0.00	Open	-2.62	6,086.66	6,086.66	0.00	0.00
P-29	600.00	8.0	Ductile Iro	130.0	false	0.00	Open	-4.62	6,086.66	6,086.66	0.00	0.00
P-30	239.00	8.0	Ductile Iro	130.0	false	0.00	Open	-7.12	6,086.66	6,086.66	0.00	0.00
P-31	377.00	8.0	Ductile Iro	130.0	false	0.00	Open	-9.12	6,086.66	6,086.66	0.00	0.00
P-32	600.00	8.0	Ductile Iro	130.0	false	0.00	Open	-10.12	6,086.66	6,086.66	0.00	0.00
P-33	154.00	8.0	Ductile Iro	130.0	false	0.00	Open	-13.12	6,086.66	6,086.66	0.00	0.00
P-34	231.00	8.0	Ductile Iro	130.0	false	0.00	Open	0.50	6,086.66	6,086.66	0.00	0.00
P-40	264.00	6.0	Ductile Iro	130.0	false	0.00	Open	4.92	6,086.68	6,086.68	0.00	0.00
P-41	429.00	6.0	Ductile Iro	130.0	false	0.00	Open	4.42	6,086.68	6,086.68	0.00	0.00
P-42	287.00	6.0	Ductile Iro	130.0	false	0.00	Open	0.00	6,086.66	6,086.66	0.00	0.00
P-43	611.00	8.0	Ductile Iro	130.0	false	0.00	Open	1.50	6,086.66	6,086.66	0.00	0.00
P-44	128.00	8.0	Ductile Iro	130.0	false	0.00	Open	0.00	6,086.66	6,086.66	0.00	0.00
P-45	325.00	6.0	Ductile Iro	130.0	false	0.00	Open	1.50	6,086.66	6,086.66	0.00	0.00
P-46	430.00	6.0	Ductile Iro	130.0	false	0.00	Open	0.00	6,086.66	6,086.66	0.00	0.00
P-47	261.00	8.0	Ductile Iro	130.0	false	0.00	Open	0.00	6,086.67	6,086.67	0.00	0.00
P-48	125.00	8.0	Ductile Iro	130.0	false	0.00	Open	0.00	6,086.68	6,086.68	0.00	0.00
P-51	521.00	8.0	Ductile Iro	130.0	false	0.00	Open	-19.44	6,086.69	6,086.69	0.01	0.01
P-52	219.00	8.0	Ductile Iro	130.0	false	0.00	Open	-21.94	6,086.69	6,086.70	0.00	0.02
P-53	386.00	12.0	Ductile Iro	130.0	false	0.00	Open	-54.51	6,086.70	6,086.70	0.00	0.01
P-17	675.00	12.0	Ductile Iro	130.0	false	0.00	Open	26.50	6,086.67	6,086.67	0.00	0.00
P-18	15.00	12.0	Ductile Iro	130.0	false	0.00	Open	26.50	6,086.67	6,086.66	0.00	0.03

APPENDIX B

Percolation Tests and Examples

PERCOLATION HOLE TEST DATA SHEET

Registered Professional Engineer

CERTIFICATE NO. 35376

RICHARD L. EVANS

Date signed 12-18-54

ARIZONA, U.S.A.

(Chemical)

PERCOLATION HOLE TEST DATA SHEET

Sandy loam

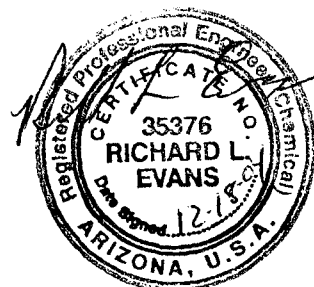


PERCOLATION HOLE TEST DATA SHEET

PERCOLATION HOLE TEST DATA SHEET

Sandy loam

Fax No.: 520/536-2659



PERCOLATION HOLE TEST DATA SHEET

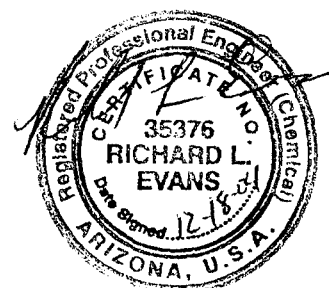
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Sandy loam

Run #	Start Time	End Time	Drop in Water	Percolation Rate, MPI P (2)-(1)	P(i+1)-Pi P1 (3)	(P1+P(i+1))/2 P2 (4)	P1/P2 (3)/(4)
1	10:51 AM	11:05 AM	1 inch	14			
2	11:05 AM	11:27 AM	1 inch	22	8	18.0	0.444
3	11:27 AM	12:00 PM	1 inch	33	11	27.5	0.400
4	12:00 PM	12:36 PM	1 inch	36	3	34.5	0.087
5	12:36 PM	1:14 PM	1 inch	38	2	37.0	0.054
6			1 inch				

39 min/in

Fax No.: 520/536-2659



CALCULATION WORKSHEET for GP 4.02 ON-SITE WASTEWATER TREATMENT FACILITY

Assessor Parcel Number: Lot 40, Canyon Vista Estates

Designed Personnel: Richard L. Evans

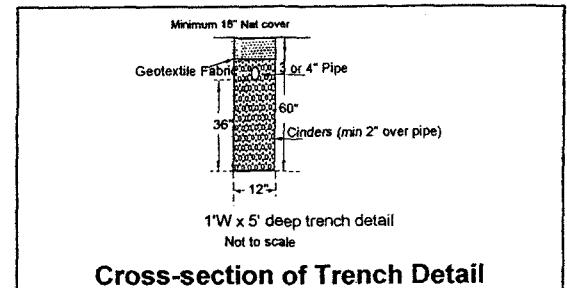
Date: 12-18-04

Number of bedrooms in home = 4 Bedrooms (A)
 Total Daily = (A)(150) = (4)(150) = 600 Gallons / Day (B)
 Flow
 SAR Value = .306 Gallons / Day / ft² (C)
 Effective Sidewall = 7 Feet (D)

Constructed = (B) = (600) = 280 Feet (E)
 Trench Length (C) (D) (.306)(7)

Rock content in the soil = 0 Percent (F)

(E)
 Constructed Trench = 1 - (F)
 Length (Adjusted for
 rock content of 10%
 or greater) (0)
 = 280 Required Lineal Feet
 1 - (.0)



Percolation Rate (min/in)	SAR Shallow Trench	SAR Deep Trench	Percolation Rate (min/in)	SAR Shallow Trench	SAR Deep Trench
<1	Not Permitted	Not Permitted	30	0.360	0.240
1 to 3	1.200	0.930	31	0.354	0.236
3	1.100	0.730	32	0.348	0.232
4	1.000	0.665	33	0.342	0.228
5	0.900	0.600	34	0.336	0.224
6	0.825	0.550	35	0.330	0.220
7	0.750	0.500	36	0.326	0.218
8	0.710	0.473	37	0.322	0.216
9	0.670	0.446	38	0.318	0.214
10	0.630	0.420	39	0.314	0.212
11	0.604	0.402	40	0.310	0.210
12	0.578	0.384	41	<u>0.306</u>	0.208
13	0.552	0.366	42	0.302	0.206
14	0.526	0.348	43	0.298	0.204
15	0.500	0.330	44	0.294	0.202
16	0.488	0.322	45	0.290	0.200
17	0.476	0.314	46	0.288	0.198
18	0.464	0.306	47	0.286	0.196
19	0.452	0.298	48	0.284	0.194
20	0.440	0.290	49	0.282	0.192
21	0.432	0.286	50	0.280	0.190
22	0.424	0.282	51	0.278	0.188
23	0.416	0.278	52	0.276	0.186
24	0.408	0.274	53	0.274	0.184
25	0.400	0.270	54	0.272	0.182
26	0.392	0.264	55	0.270	0.180
27	0.384	0.258	55-60	0.250	0.170
28	0.376	0.252	60-120	0.200	0.130
29	0.368	0.246	120+	Alternative	Alternative

Arroyo Plata Drive

- Observation Hole
- Perforated Pipe
- Solid Pipe
- Inspection Pipe

Lot 40

Plot Plan

Scale

1" = 35'

Electric Line

Drive

Water Line

4 Bedroom House

2 Way Cleanout

10' Min

1250 Gal Tank

3 Equal Lines of 93'
Minimum 6' Apart

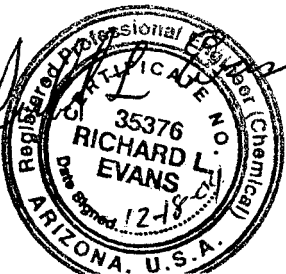
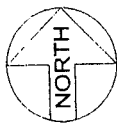
Reserve Area

15' X 100'

Flat Ground

165'

330'



NOTE: Min 5' undisturbed soil around D Box

Material List
Lot 40, Canyon Vista Estates

1 – 1250 gal. tank w/filter

1 – Diversion Box

1 – 2 way Cleanout with cap - 4"

300' – 3" OR 4" Perf. Pipe

60' – 3" OR 4" Solid Pipe

20' – 4" SDR 35 Pipe

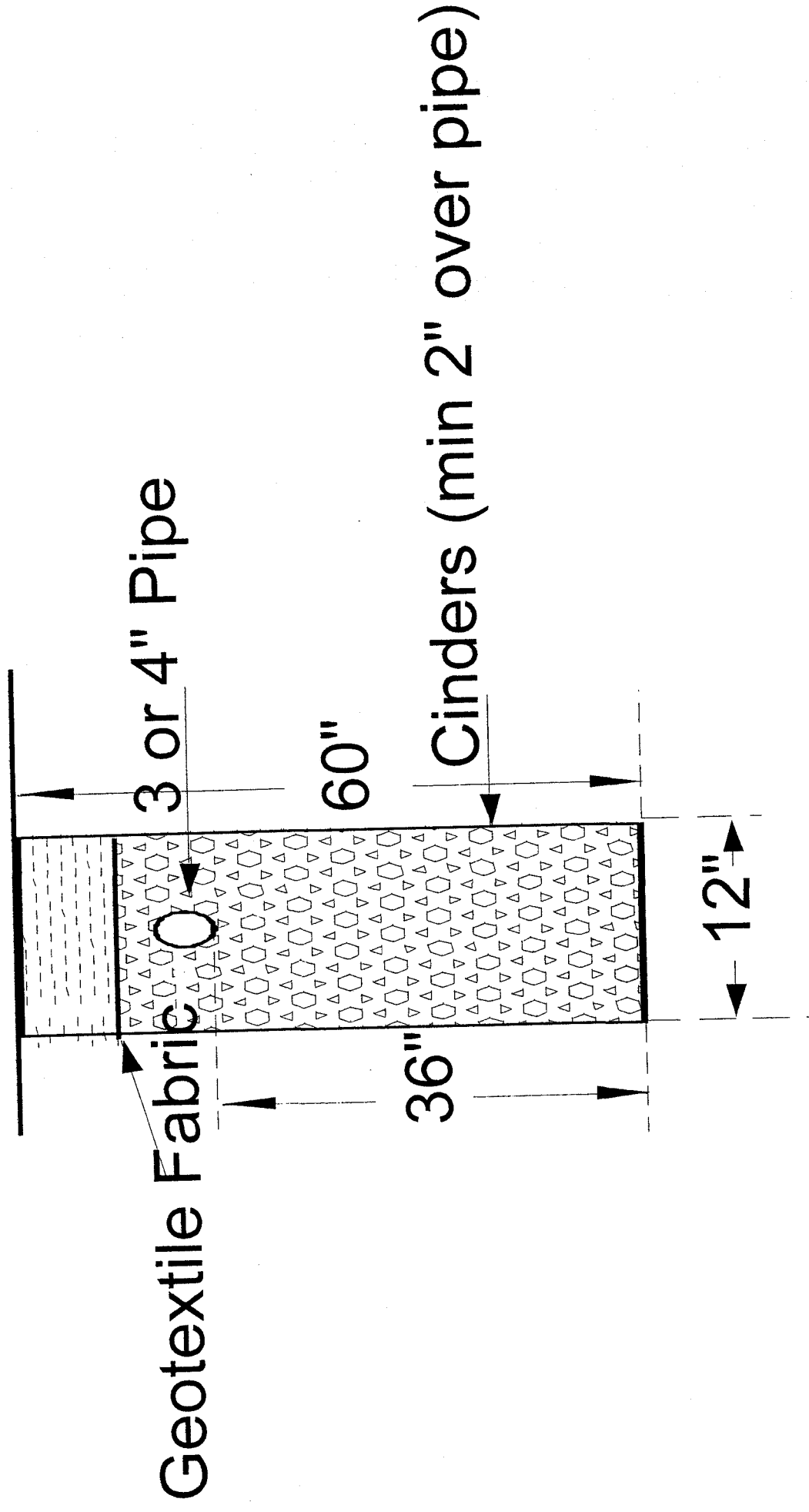
6 – 3" OR 4" Caps

42 yds – $\frac{3}{4}$ " – 2 $\frac{1}{2}$ " Leech Rock

280' – 12" wide Geotextile Fabric

1 – Permanent Tank Marker

Minimum 18" Nat cover



1'W x 5' deep trench detail

Not to scale

**Design Calculations
Wisconsin Mound
Canyon Vista Estates Lot 5
Sample 4 Bedroom Design**

Step 1 See plot plan

Step 2 **Waste water load**

$$150 \text{ gal/day/BR} \times 4 \text{ BR} = 600 \text{ gal/day}$$

Step 3 **Fill material**

$$\text{Cinder sand SAR} = 0.8 \text{ gal/ft}^2/\text{day}$$

Step 4 **Absorption area**

$$600 \text{ GPD} / 0.8 \text{ gal/ft}^2/\text{day} = 750 \text{ sqft}$$

$$\text{Use bed width} = 10 \text{ ft}$$

$$\text{Bed length} = 750 \text{ ft}^2 / 10' = 75 \text{ ft}$$

Step 5 **Mound height (See attached cross section)**

$$\text{Fill depth (D)} = 2 \text{ ft}$$

$$\text{Fill depth (E)} = 2 \text{ ft} + 2\% \text{ slope}/10' = 2 \text{ ft} + 0.2 \text{ ft} = 2.2'$$

$$\text{Bed depth (F)} = 9"$$

$$\text{Cap and top soil (H)} = 1.5 \text{ ft (1' subsoil + 6" top soil)}$$

$$\text{Cap and top soil (G)} = 1.0 \text{ ft (6" subsoil + 6" top soil)}$$

Step 6 **Mound length and width (see attached sketch)**

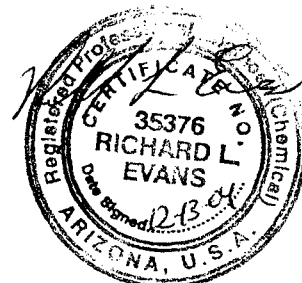
$$\begin{aligned} \text{End slopes (K)} &= ((D+E)/2 + F + H) \times 3 \\ &= ((2+2.2)/2 + 9" + 1.5) \times 3 \\ &= 4.35 \times 3 \\ &= 13.05' \end{aligned}$$

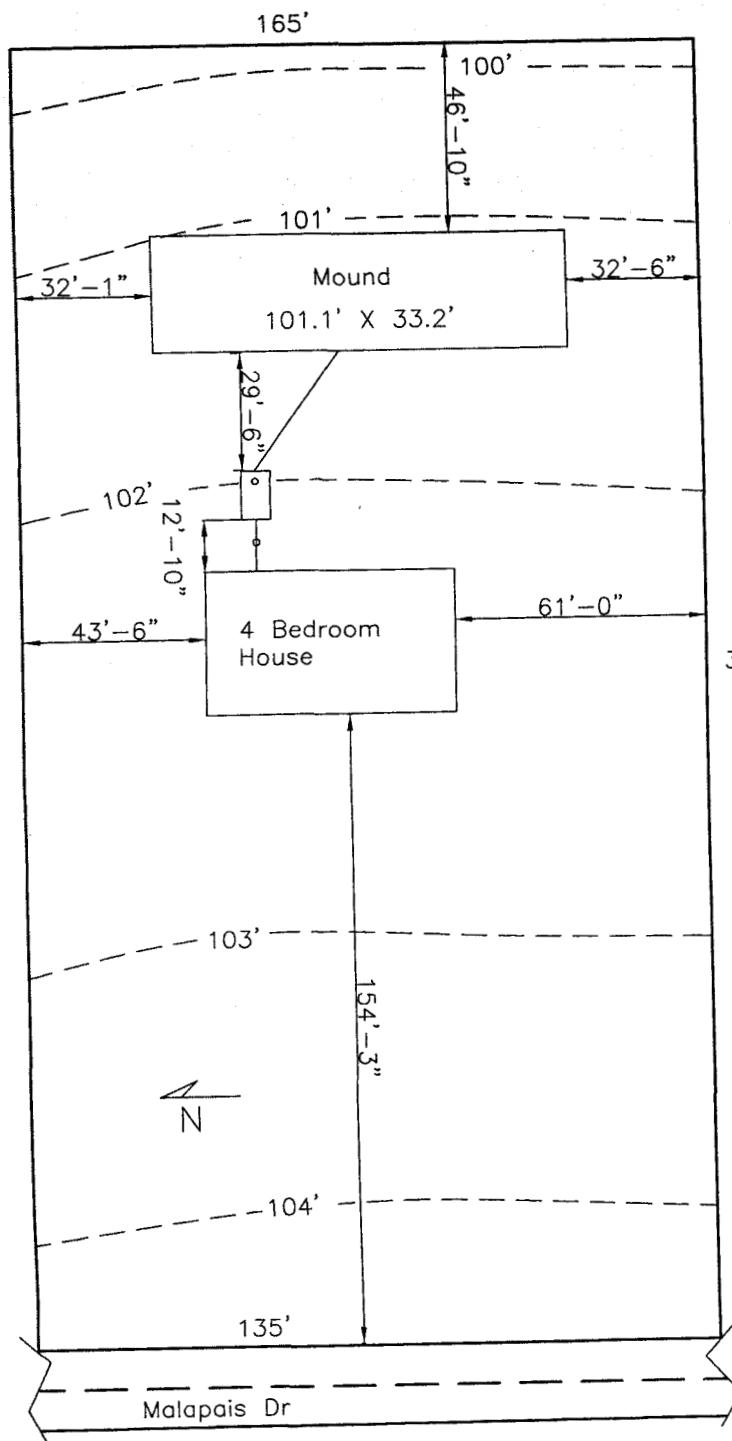
$$\begin{aligned} \text{Upslope width (J)} &= (D + F + G) \times 3 \times 0.94 \\ &= (2 + 0.75 + 1) \times 3 \times 0.94 \\ &= 10.6' \end{aligned}$$

$$\begin{aligned} \text{Downslope width (I)} &= (E + F + G) \times 3 \times 1.06 \\ &= (2.2 + 0.75 + 1) \times 3 \times 1.06 \\ &= 12.6' \end{aligned}$$

$$\begin{aligned} \text{Mound Length (L)} &= B + 2(K) \\ &= 75 + 2(13.05) \\ &= 101.1' \end{aligned}$$

$$\begin{aligned} \text{Mound Width (W)} &= I + A + J \\ &= 12.6 + 10 + 10.6 \\ &= 33.2' \end{aligned}$$





Canyon Vista Estates
Lot 5
Plot Plan
Scale: 1" = 30'



P. 1/1	WMT 04-5	12-13-04 Rev 0	Owners:	Canyon Vista Estates Lot 5 Example Wisconsin Mound	
				WHITE MOUNTAIN TESTING	P O BOX 845 Taylor, AZ 85939

DESIGN NARRATIVE

Canyon Vista Estates Lot 17 Example
4 Bedroom

After several excavations, the soil on this property was found to be:

0 - 20" Topsoil
20 - 120" Sandy loam

A 0.2 SAR was used to design this alternative system. A 40% safety factor was also used. The maximum fixture count on this job is 25.

Calculations:

4 bedrooms x 150 gal/br = 600 gal/day typical residential wastewater
600 gal/day/0.2 SAR = 3000 sqft field
40% safety = $3000 \times 1.4 = 4200$ sqft

Choose Wasteflow Classic dripline, 1.3 GPH/emitter, 2' spacing between laterals, 2' spacing between emitters.

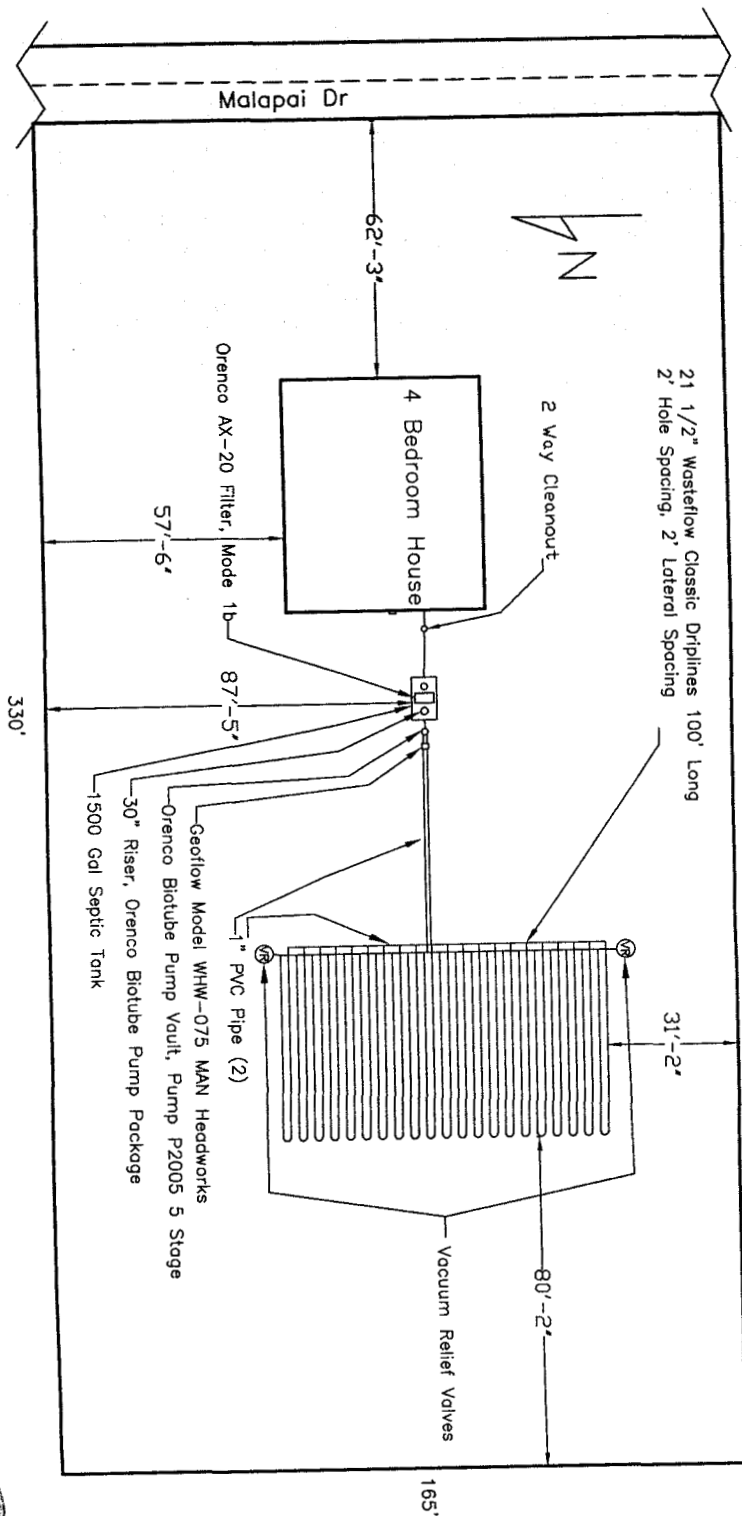
Ft dripline req'd (from Geoflow design manual) $4200 \text{ sqft} / 2 = 2100'$ dripline
emitters (from Geoflow design manual) $2100' / 2 = 1050$ emitters
Pump flow $1050 \text{ emitters} \times 1.3 \text{ gph/emitter} / 60 \text{ min/day} = 22.8 \text{ GPM}$

Head req'd

Dripfield pressure (from Geoflow design manual) $20 \text{ psi} \times 2.31 \text{ ft/psi} = 46.2'$
Screen filter pressure drop (from Geoflow design manual) = $23'$
Transport pipe = $1'$
Discharge assembly = $7'$
Static head = $5'$
Total head req'd = $82.2'$

Orengo dosing pump 22.8 GPM @ 82.2' TDH P2005 5 stage





Canyon Vista Estates
 Lot 17
 Plot Plan
 Scale: 1" = 30'



P O BOX 845 Taylor, AZ 85939	Canyon Vista Estates Lot 17 Example Orenco System WHITE MOUNTAIN TESTING	Owners:
12-13-04 Rev 0 WMT 04-6	P. 1/1	

APPENDIX C

GARBAGE SERVICE AGREEMENT

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY, WATER QUALITY DIVISION
1100 W. Washington St., Phoenix, Arizona 85007

Agreement must be filled out and signed by a representative of the collection agency; the operational authority of the landfill; the Arizona Department of Environmental Quality (ADEQ) and submitted with application.

GARBAGE SERVICE AGREEMENT -

As required by Arizona Department of Environmental Quality Rules and Regulations, and specifically regulation A.A.C. § R18-5-409.

The Larson Waste agrees to provide
Name of Collection Agency

refuse collection service to Canyon Vista Estates Navajo
Name of Subdivision County

in accordance with applicable rules and regulations governing refuse collection and disposal.

Date _____ Signed _____
Representative of Collection Agency

Title _____

Address _____

City _____ Zip Code _____

In order to approve the above collection service we must also have the information in the agreement below.

GARBAGE DISPOSAL AGREEMENT -

As required by Arizona Department of Environmental Quality Rules and Regulations, and specifically regulation A.A.C. § R18-5-409.

The Apache County Regional Landfill
Name of Disposal Site

is operated by Blue Hills Environmental
Name of Operational Authority

in accordance with applicable rules and regulations governing refuse disposal and will accept refuse from persons living in:

CANYON VISTA ESTATES
Name of Subdivision

Date 2/17/05 Signed Rita Nolas
Representative of Operational Authority

Title ASST MGR

Address P.O. BOX 175

City ST. JOHNS Zip Code 85936

ADEQ: ☐ Approved
☐ Disapproved

Date

Authorized ADEQ Representative

Feb 17 05 11:19a

Murphy Engr Group

920 537 8422

P. 2

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY, WATER QUALITY DIVISION
1100 W. Washington St., Phoenix, Arizona 85007

Agreement must be filled out and signed by a representative of the collection agency, the operational authority of the landfill, the Arizona Department of Environmental Quality (ADEQ) and submitted with application.

GARBAGE SERVICE AGREEMENT -

As required by Arizona Department of Environmental Quality Rules and Regulations, and specifically regulation A.A.C. § R18-5-409.

The Larson Waste agrees to provide

Name of Collection Agency

refuse collection service to Canyon Vista Estates Navajo

Name of Subdivision

County

in accordance with applicable rules and regulations governing refuse collection and disposal.

Date 2/18/05 Signed [Signature]

Representative of Collection Agency

Title President

Address 239 N. 2nd West

City SNOWFLAKE Zip Code 85937

In order to approve the above collection service we must also have the information in the agreement below.

GARBAGE DISPOSAL AGREEMENT -

As required by Arizona Department of Environmental Quality Rules and Regulations, and specifically regulation A.A.C. § R18-5-409.

The Apache County Regional Landfill

Name of Disposal Site

is operated by Blue Hills Environmental

Name of Operational Authority

in accordance with applicable rules and regulations governing refuse disposal and will accept refuse from persons living in:

Name of Subdivision

Date _____ Signed _____

Representative of Operational Authority

Title _____

Address _____

City _____ Zip Code _____

ADEQ: ☐ Approved

☐ Disapproved

Date

Authorized ADEQ Representative

Silver Well Service Corp

P.O. Box 1270 Show Low, AZ 85902
(928) 537-8739

October 6, 2005

ADEQ
Water Quality Compliance Unit
C/o Jim Puckett
1110 W Washington St, 5415B-1
Phoenix, AZ 85007

Dear Mr. Puckett,

Enclosed please find the 2004 Consumer Confidence Report.

Please provide us with updated Drinking Water Compliance Status Report. Thank you for your consideration in this matter.

If you have any other questions or comments please feel free to contact us at the number above.

Sincerely,



Mark Grapp

Arizona Department of Environmental Quality
Water Quality Compliance Assurance Unit
1110 W. Washington Street, 5415B-1
Phoenix, AZ 85007

Drinking Water Compliance Status Report

Public Water System Name: Silver Well Service Corp.

Public Water System ID #: 09-027

Public Water System Type: ☒ CO ☐ Non-transient Non-community ☐ Transient Non-community

Overall Compliance Status: ☐ No Major Deficiencies ☒ Major Deficiencies

Monitoring and Reporting Status: ☐ No Major Deficiencies ☒ Major Deficiencies

Comments:

This system has failed to provide calendar year 2004, consumer confidence report.

Operation and Maintenance Status: ☒ No Major Deficiencies ☐ Major Deficiencies

Comments:

Major unresolved/ongoing operation and maintenance deficiencies:

- | | |
|---|---|
| <input type="checkbox"/> unable to maintain 20psi | <input type="checkbox"/> inadequate storage |
| <input type="checkbox"/> cross connection/backflow problems | <input type="checkbox"/> surface water treatment rule |
| <input type="checkbox"/> treatment deficiencies | <input type="checkbox"/> approval of construction |
| <input type="checkbox"/> certified operator | <input type="checkbox"/> other |

Date of last inspection / sanitary survey: 5-13-02

Administrative Orders:

Is an ADEQ administrative order in effect? ☐ Yes ☒ No

Comments:

System information:

Number of Points of Entry 1 Number of Sources 1 Population Served 706

Service Connections 752 Initial Monitoring Year 1994 Initial MAP Year 2000

Evaluation completed by: Jim Puckett

Phone: 602-771-4649

Date: 9-7-05

Based upon data submitted by the water system, ADEQ has determined that this system is currently delivering water that meets water quality standards required by Arizona Administrative Code, Title 18, Chapter 4. This compliance status report does not guarantee the water quality for this system in the future. This compliance status report does not reflect the status of any other water system owned by this utility company.

Silver Well Service Corp.

P.O. BOX 1270 SHOW LOW, AZ 85902

PHONE 928-537-8739

FAX 928-537-8739

2004 Drinking Water Consumer Confidence Report

Silver Well Service Corporation in Show Low, Arizona is responsible for the monitoring of the water quality within their system and has been instructed by the Environmental Protection Agency (EPA) to provide annual water quality reports to the water users of the system. Questions about the water system, or requests for copies of reports can be directed to this office at the address or telephone number above.

Silver Well Service Corporation obtains water from two wells. One well is located in Silver Lake Estates and one is located in Bourdon Ranch Estates. The water supplies from these two wells is separate from each other and have their own storage tanks.

Since the source is ground water, we are required under the EPA/Arizona Department of Environmental Quality (ADEQ) rules to take scheduled water samples. The samples are sent to several laboratories throughout the state to check for various forms of the chemical and biological contamination including Radio Chemicals, Inorganic Chemicals, Volatile Organic Chemicals and Synthetic Organic Chemicals. The state allows us to monitor for some contaminants less than once per year because the concentrations do not change frequently.

Terms:

Maximum Contaminant Level (MCL). The highest level of contamination that is allowed in drinking water. MCLs are set as close to the MCLG's as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG). The level of a contaminant in drinking water below which there is now known or expected risk to health. MCLGs allow for a margin of safety.

N/A Not Applicable
ND Not Detected
pCi/L Pico curies per Liter
Ppm Part per Million or Milligrams per Liter (Mg/l)
Ppb Parts per Billion or Micrograms per Liter (Ug/l)

REGULATED DETECTED CONTAMINANTS

<u>CONTAMINANT</u> <u>DATE SAMPLED</u>	<u>MCL/</u> <u>MCLG</u>	<u>RESULTS</u>	<u>DETECTION</u> <u>LEVEL</u>	<u>MAJOR SOURCES</u> <u>IN DRINKING</u>
<u>TOTAL</u> <u>COLIFORMS</u> Monthly	>5.0%/0	9-04-1**BR January 1 - December 31, 2003	Presence/ Absence	Natural in Environment

*Radiology Sampling, Note on Radio chemicals: EPA considers 50 pCi/l to be the level of concern for Beta particles.

**All follow up samplings showed no contaminants

BR Identifies the Bourdon Ranch System

Educational Training

1. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791)
2. Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as a person with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other

immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water the risk of infection by *Cryptosporidium* and other microbial contaminants are available from Safe Drinking Water Hotline.

3. The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- *Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- *Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- *Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff and residential uses.
- *Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production and can also come from gas stations, urban storm water runoff and septic systems.
- *Radioactive contaminants, which can be naturally occurring or be the result of oil and production and mining activities.

In order to ensure that the tap water is safe to drink, EPA prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

CANYON VISTA ESTATES
ENGINEER'S CONSTRUCTION ESTIMATE
8/8/2005

<u>WATER</u>	<u>QTY</u>	<u>UNIT</u>	<u>PRICE</u>	<u>TOTAL</u>
6" PVC Water Line	694	L.F.	\$13.32	\$9,244.08
8" PVC Water Line	5830	L.F.	\$28.00	\$163,240.00
12" PVC Water Line	1007	L.F.	\$34.00	\$34,238.00
6" Valve, Box, & Cover	2	EA.	\$850.00	\$1,700.00
8" Valve, Box, & Cover	11	EA.	\$850.00	\$9,350.00
Fire Hydrant, complete	12	EA.	\$2,750.00	\$33,000.00
Single Meter Service	2	EA.	\$450.00	\$900.00
Double Meter Service	27	EA.	\$600.00	\$16,200.00
Curb Stop w/Flushing Pipe	4	EA.	\$800.00	\$3,200.00
Water Well & Pump	1	EA.	\$45,700.00	\$45,700.00
120k Gal. Storage Tank	1	EA.	\$120,000.00	\$120,000.00
Water Booster Station	1	EA.	\$65,000.00	\$65,000.00
				<hr/>
				\$501,772.08